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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,769	11/09/2000	Nigel Hugh Sanders	360.7169USU	1509

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EXAMINER

BECKER, DREW E

ART UNIT	PAPER NUMBER
1761	/C

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/600,769	SANDERS ET AL
	Examiner	Art Unit
	Drew E Becker	1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 April 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 17 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12, 14-16 and 18-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-12 and 14-16 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that an improper grounds for restriction has been applied since the examiner presented the restriction requirement in the "Lack of Unity" form. This is not found persuasive because when the Office considers international applications as an International Searching Authority, as an International Preliminary Examining Authority, and during the national stage as a Designated or Elected Office under 35 U.S.C. 371, PCT Rule 13.1 and 13.2 will be followed when considering unity of invention of claims of different categories without regard to the practice in national applications filed under 35 U.S.C. 111. No change was made in restriction practice in United States national applications filed under 35 U.S.C. 111 outside the PCT. In applying PCT Rule 13.2 to international applications as an International Searching Authority, an International Preliminary Examining Authority and to national stage applications under 35 U.S.C. 371, examiners should consider for unity of invention all the claims to different categories of invention in the application and permit retention in the same application for searching and/or preliminary examination, claims to the categories which meet the requirements of PCT Rule 13.2. (See MPEP 1850)

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 3-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose how to cause "the coating material to flow along a surface of a supply means... and introducing said at least one stream of gas between the coating material and the surface of the supply means". Figure 2 illustrates a surface of a supply means along which the material flows (#14d), however the air stream is not introduced between that surface and the flowing material.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1, line 4 recites "relevant movement". It is not clear what level or degree of movement would be considered "relevant".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 6, 8-10, 12, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Straight et al [Pat. No. 5,004,620].

Straight et al teach a method of applying a coating to articles by providing a curtain of solidifiable chocolate coating material (column 4, line 15), effecting movement between food articles and the curtain via a conveyor belt to form a layer of chocolate on the surface of the articles (Figure 4, #22; column 3, line 63), subjecting the established chocolate curtain to a stream of gas under pressure to modify the flow characteristics by changing its direction (column 6, lines 3-20), a curved surface adjacent to the curtain which helps to change the curtain's direction (Figure 4, #86), simultaneously controlled curtains (column 5, line 56), controlling the pressure in order to keep the curtains flowing vertically (column 6, lines 3-20), and the gas being air (column 6, line 8).

10. Claims 1, 6, 9-10, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0551237A1.

EP 0551237A1 teaches a method of curtain coating by providing a curtain of solidifiable liquid material (Figure 1, #17), effecting movement of the surfaces to be coated (Figure 1, #11), subjecting the curtain to a gas stream of controlled pressure which modifies the flow characteristics of the curtain by changing its direction (Figure 1, #22; column 4, lines 39-60), and the gas being air (column 4, line 35).

11. Claims 1, 6-10, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1559701.

GB 1559701 teaches a method of curtain coating by providing two curtains of solidifiable liquid material (Figure 1, #8-9), effecting movement of the surfaces to be coated (Figure 1, #3), subjecting the curtain to an air stream of controlled pressure which modifies the flow characteristics of the curtain by changing its direction (Figure 1, #A; column 4, lines 39-50), and a curved surface which creates a Coanda effect (Figure 1, #12).

12. Claims 1, 6-7, 9-10, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Timson [Pat. No. 4,128,667].

Timson teaches a method of curtain coating by providing a curtain of solidifiable liquid material (Figure 1, #1), effecting movement of the surfaces to be coated (Figure 1, #5), subjecting the curtain to an air stream of controlled pressure which modifies the flow characteristics of the curtain by changing its direction (Figure 1, #6-6A; column 3, lines 9-39), and a curved surface which creates a Coanda effect (Figure 1, #3).

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13. Claims 1, 3-5, 9-10, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Boger et al [Pat. No 5,409,733].

Boger et al teach a method of curtain coating by providing a curtain of solidifiable liquid material (Figure 1, #12), effecting movement of the surfaces to be coated (Figure 1, #10), subjecting the curtain to air streams of controlled pressure which modify the flow characteristics of the curtain by changing its direction (Figure 2, #61-62), a surface of a trough shaped supply means (Figure 2, #63-64), and the air streams being introduced between the supply means surface and the coating material (Figure 2, #61-64).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Straight et al.

Straight et al teach the above mentioned concepts. Straight et al do not mention a gas temperature which is about the same as that of the coating material. Although not specifically mentioned, it would have been obvious to one of ordinary skill in the art to use a gas temperature which was about the same as that of the coating material in the invention of Straight et al since Straight et al used molten chocolate as the coating material (column 4, line 15), since air that was too hot would have burnt the chocolate,

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since air that was too cool would have partially solidified the chocolate before it reached the food, and since this air temperature would have been used during the course of normal experimentation and optimization procedures.

16. Claims 3-5 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Straight et al as applied above, in view of Boger et al [Pat. No. 5,409,733]. Straight et al teach the above mentioned concepts. Straight et al also teach a supply means including a V-shaped trough with a slot (Figure 6, #80, 82, 84). Straight et al do not teach introducing the gas stream between the coating material and the surface of the trough, and thus separating the two. Boger et al teach a method of applying a coating to articles by introducing a gas stream (Figure 2, #61-62) between the coating material (Figure 2, #37) and the surface of a supply means (Figure 2, #63-64), and controlling the gas temperature (Figure 2, #107). It would have been obvious to one of ordinary skill in the art to incorporate the "separating" gas stream of Boger et al into the invention of Straight et al since both are directed to methods of applying liquid curtains to articles, since Straight et al already included a supply means and gas stream (Figure 6, #80, 82, 84; Figure 4, #86), since the molten chocolate of Straight et al was a viscous fluid, and since the "separating" gas stream of Boger et al eliminated splashing and stringing, provided sharp cut-on and cut-off, and permitted the use of high viscosity materials (column 3, lines 56-64). Although not specifically mentioned, it would have been obvious to one of ordinary skill in the art to use a gas temperature which was about the same as that of the coating material in the invention of Straight et al since Straight et al used molten chocolate as the coating material (column 4, line 15), since

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air that was too hot would have burnt the chocolate, since air that was too cool would have partially solidified the chocolate before it reached the food, and since this air temperature would have been used during the course of normal experimentation and optimization procedures. Regarding the reduced viscosity of claim 19, this would have inherently been an inherent affect of the air stream of Straight et al.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Straight et al as applied above, in view of Timson [Pat. No. 4,128,667].

Straight et al teach the above mentioned concepts. Straight et al also teach changing the direction of the current via the air stream (column 6, lines 10-20). Straight et al do not teach a curved surface which creates a coanda effect. Timson teaches a method of coating by creating curtain and keeping it straight by use of curved surfaces which create a coanda effect (Figure 1, #3-4). It would have been obvious to one of ordinary skill in the art to incorporate the curved surfaces of Timson into the invention of Straight et al since both are directed to methods of curtain coating, since Straight et al already taught changing the direction of the current via the air stream (column 6, lines 10-20), since the curved surfaces of Timson can adjust the angle of contact as well as the curtain velocity (column 1, lines 43-52), and since varied velocities and contact angles would have permitted better control over the chocolate coating process of Straight et al.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ferrero [Pat. No. 5,480,664], Von Drachenfels [Pat. No.

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3,470,831], Schwarz [Pat. No. 3,806,289], and Baker et al [Pat. No. 1,737,447] teach methods of coating foods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E Becker whose telephone number is 703-305-0300. The examiner can normally be reached on Monday-Thursday 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 703-308-3959. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.


Drew E Becker
Examiner
Art Unit 1761

June 13, 2003